CLAIMS

1. A preventive or curative composition for skin ulcer, comprising a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

2. A neovascularization promoting composition, comprising a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

3. A granulation formation-promoting composition, comprising a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

4. The composition according to any one of claims 1 to 3, wherein the human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is any one of the following;

(a) a protein comprising an amino acid sequence described in SEQ ID NO: 1 of Sequence Listing; or

(b) a protein comprising an amino acid sequence in which one to several amino acid(s) is/are deleted, substituted or added in SEQ ID NO: 1 of Sequence Listing, and having the HGF activity.

5. A preventive or curative composition for skin ulcer, comprising a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

6. A neovascularization promoting composition,

comprising a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

7. A granulation formation-promoting composition, comprising a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

8. The composition according to any one of claims 5 to 7, wherein the gene encoding a human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is a gene comprising any one of the following DNAs;

(a) a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence listing;

(b) a DNA comprising a nucleotide sequence in which one to several nucleotide(s) is/are deleted, substituted or added in SEQ ID NO: 2 of Sequence Listing, and encoding a protein having the HGF activity;

(c) a DNA comprising a nucleotide sequence which hybridizes with a DNA comprising a nucleotide sequence complementary to a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing under the stringent condition, and encodes a protein having the HGF activity; or

(d) a DNA comprising a nucleotide sequence which has at least 70% or more homology with a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing, and encoding a protein having the HGF activity.

9. A method for treating a skin ulcer, comprising administering to a mammal a human recombinant HGF wherein five

amino acid residues are deleted in the first Kringle domain.

10. A method for promoting neovascularization, comprising administering to a mammal a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

11. A method for promoting granulation formation, comprising administering to a mammal a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

12. The method according to any one of claims 9 to 11, wherein the human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is any one of the following;

(a) a protein comprising an amino acid sequence described in SEQ ID NO: 1 of Sequence Listing; or

(b) a protein comprising an amino acid sequence in which one to several amino acid(s) is/are deleted, substituted or added in SEQ ID NO: 1 of Sequence Listing, and having the HGF activity.

13. A method for treating a skin ulcer, comprising administering to a mammal a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

14. A method for promoting neovascularization, comprising administering to a mammal a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

15. A method for promoting granulation formation, comprising administering to a mammal a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

16. The method according to any one of claims 13 to 15, wherein the gene encoding a human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is a gene comprising the following DNAs;

(a) a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing;

(b) a DNA comprising a nucleotide sequence in which one to several nucleotide(s) is/are deleted, substituted or added in SEQ ID NO: 2 of Sequence Listing, and encoding a protein having the HGF activity;

(c) a DNA comprising a nucleotide sequence which hybridizes with a DNA comprising a nucleotide sequence complementary to a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing under the stringent condition, and encodes a protein having the HGF activity; or

(d) a DNA comprising a nucleotide sequence which has at least 70% or more homology with a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing, and encodes a protein having the HGF activity.

17. Use of a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, for preparing a drug to treat a skin ulcer.

18. Use of a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, for preparing a drug to promote neovascularization.

19. Use of a human recombinant HGF wherein five amino acid residues are deleted wherein five amino acid residues are deleted in the first Kringle domain for preparing a drug to promote granulation formation.

20. The use according to any one of claims 17 to 19, wherein the human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is any one of the following:

(a) a protein comprising an amino acid sequence described in SEQ ID NO: 1 of Sequence Listing; or

(b) a protein comprising an amino acid sequence in which one to several amino acid(s) is/are deleted, substituted or added in SEQ ID NO: 1 of Sequence Listing, and having the HGF activity.

21. Use of a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, for preparing a drug to treat a skin ulcer.

22. Use of a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, for preparing a drug to promote neovascularization.

23. Use of a gene encoding a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain,

for preparing a drug to promote granulation formation.

24. The use according to any one of claims 21 to 23, wherein the gene encoding a human recombinant HGF in which five amino acid residues are deleted in the first Kringle domain is a gene comprising any one of the following DNAs;

(a) a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing;

(b) a DNA comprising a nucleotide sequence in which one to several nucleotide(s) is/are deleted, substituted or added in SEQ ID NO: 2 of Sequence Listing, and encoding a protein having the HGF activity;

(c) a DNA comprising a nucleotide sequence which hybridizes with a DNA comprising a nucleotide sequence complementary to a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing under the stringent condition, and encodes a protein having the HGF activity; or

(d) a DNA comprising a nucleotide sequence which has at least 70% or more homology with a DNA comprising a nucleotide sequence described in SEQ ID NO: 2 of Sequence Listing, and encodes a protein having the HGF activity.

25. A sealing-type wound covering material, comprising a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain.

26. A kit for treating a skin ulcer, comprising a composition containing a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, and a

sealing-type wound covering material which can absorb an exudate from an affected part of skin ulcer.

27. A method for treating a skin ulcer, comprising covering wound surface with a sealing-type wound covering material which can absorb an exudate from the affected part of skin ulcer, maintaining the affected part of skin ulcer under the wet environment, and placing a human recombinant HGF wherein five amino acid residues are deleted in the first Kringle domain, in a sealing-type wound covering material, or between a sealing-type wound covering material and wound surface.